5 studies were selected that reported appropriate data to assess test-retest reliability and 26 studies were selected which reported alpha coefficient scores to determine the internal consistency of the HADS. Factor analysis studies revealed consistent bi-dimensional or tripartite models, with few exceptions. Just one study of five evaluated fulfilled he criteria for good test-retest reliability. However, most of the studies reporting alpha revealed an acceptable level of internal consistency reliability. **CONCLUSIONS:** Based on the studies in the review, the findings suggest that the HADS may be an effective screening tool in an alcohol dependent population, though there is a caveat to this. The test-retest characteristics appear unsatisfactory in the studies selected. Notwithstanding the test-retest reliability characteristics, factor structure and internal consistency evidence would suggest the instrument to be suitable for use in an alcohol-dependent population.

PMH72

CONCORDANCE OF COMPUTERIZED SELF-REPORT MEASURES OF DSM-IV-TR MOOD AND ANXIETY DISORDERS COMPARED TO GOLD STANDARD CLINICAL ASSESSMENTS IN PRIMAY CARE

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OBJECTIVES: Substantial numbers of patients presenting to primary care suffer unrecognized disorders of mood or anxiety, potentially complicating treatment and outcome. The objective of this study was to evaluate the validity of an electronic screening instrument based upon the World Health Organization's Composite International Diagnostic Interview (WHO CIDI) and DSM-IV-TR designed for use in primary care. This is a fully-structured computerized instrument designed to screen for bipolar disorder (BPD), generalized anxiety disorder (GAD), panic disorder (PD) and major depressive episodes (MDE) in primary care patients. **METHODS:** A preliminary version of the instrument was piloted in individuals with known disease. Following cognitive interviews with subjects, it was refined and tested in 3058 respondents from 29 primary care physician offices across the US. Sub-samples were selected to receive a reappraisal interview (n = 206), over-sampling on those screening positive for either the disorders. To assess validity each completed a "gold-standard" Structured Clinical Interview for DSM (SCID) administered via phone by trained clinicians. **RESULTS:** Individual-level concordance was good between the screener diagnoses and the SCID assessments. Area under the receiver operating characteristic curve (AUC), a measure of classification accuracy not influenced by disorder prevalence) demonstrated substantial agreement for MDE (AUC = 0.85). BPD initially demonstrated fair-moderate agreement (AUC = .78), but this was improved to the "substantial" range (AUC = 0.86) with the enhancement of history of lifetime mania in the SCID interview. PD and GAD both demonstrated fair-moderate agreement (AUC = 0.79 and AUC = 0.67; respectively). **CONCLUSIONS:** The results demonstrate that the CIDI-based computerized screening instrument can be used to identify the vast majority of patients with a high likelihood of mood and anxiety disorders treated in the primary care setting.

PMH73

EVALUATION OF PSYCHOMETRIC EQUIVALENCE BETWEEN INTERACTIVE VOICE-RESPONSE (IVR) AND PAPER VERSIONS OF DAILY ASSESSMENT SCALE FOR ANXIETY (DAS-A)

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OBJECTIVES: The DAS-A is an 8-item patient-reported instrument designed to detect daily changes of anxiety symptoms in patients with Generalized Anxiety Disorder (GAD) during the first week of treatment. This study compared the psychometric and measurement properties of an IVR version of the DAS-A with the original paper version. **METHODS:** Adult patients with GAD were enrolled at the screening visit of a clinical trial. Treatment randomization occurred at day 0. Patients were scheduled to complete the IVR DAS-A from day −6 through day 7. Paper-and-pencil DAS-A forms were completed by selected patients during clinic visits on days 0, 4 and 7. Psychometric properties of both DAS-A forms were compared with respect to internal scale consistency (Chronbach's alpha), item reliability (intraclass correlation coefficient; ICC), and mean score equivalence when both formats were administered within 24 hours of each other (paired t-tests). **RESULTS:** A total of 2804 IVR DAS-A assessments and 119 paper DAS-A forms were completed. In 62 instances both formats were completed within 24 hours of one another. Cronbach's alpha across all IVR DAS-A administrations was 0.85; the mean ICC was 0.84 (95% CI = 0.83–0.85). Cronbach's alpha across all paper DAS-A administrations was 0.90; the mean ICC was 0.89 (95% CI = 0.86–0.92). The mean (± SD) IVR and paper DAS-A total scores were 58.97 (± 20.09) and 60.91 (± 21.00), respectively; this difference was not statistically significant, t = 1.89, $p. = 0.06$. The correlation between the DAS-A total scores was 0.90, $p. < 0.001$. Comparisons between DAS-A formats at an item-by-item level found significant inter-method correlations (range 0.59 to 0.79); one item identified a potentially significant difference in mean score, t = 2.05, $p. = 0.04$, but likely reflects Type I error inflation. **CONCLUSIONS:** This analysis supports the equivalence of the IVR and paper DAS-A formats for measuring daily changes of anxiety symptoms in patients with GAD.

PMH74

INTENSIVE COGNITIVE INTERVIEWING WITH PATIENTS DIAGNOSED WITH SCHIZOPHRENIA AND THE REFINEMENT OF THE CLEAR THINKING SCALE (CTS)

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OBJECTIVES: Intensive cognitive interviews are valuable in the refinement of patient reported outcome (PRO) instruments and can identify how patients perceive the meaning of questions, how they develop and justify their responses and can allow the researcher to test face validity and burden of the instrument. We conducted intensive cognitive interviews with outpatients diagnosed with schizophrenia to refine the clear thinking scale (CTS)—a recently validated PRO instrument that assesses patient preferences and functioning across four sub-domains (staying organized; making sense of the world; feeling clear headed; and expressing thoughts and feelings). **METHODS:** Intensive cognitive interviews were conducted by an experienced interviewer at various facilities associated with Johns Hopkins. Following the consenting process, participants completed the preferences (5 items) and functioning (28 items) components of the CTS. Concurrent and retrospective verbal probing was utilized to assess the respondent level of understanding and burden. All interviews were recorded, transcribed and analyzed using phenomenological qualitative methods. **RESULTS:** A total of 20 patients with a primary diagnosis of diagnosis of schizophrenia or schizoaffective disorder participated in the study. While respondents regularly got off topic and often lacked confidence in their answers, we found a relatively consistent interpretation of items across respondents. We also identified several approaches to improving the CTS scale, including: 1) simplifying items and avoiding compounded items; 2) repeating the time frame (i.e., in the past week) before every question; 3) supporting response variables with numbers/details; 4) using rankings rather than ratings to elicit patient preferences; 5) avoiding items that might have a literal interpretation; 6) measuring functioning prior to measuring preferences; and 7). having an example question for both functioning and preferences questions. **CONCLUSIONS:** Despite its difficulties, intensive cognitive interviewing among patients diagnosed with schizophrenia provided valuable information for the refinement of the CTS and other future PRO scales.

PMH75

EFFECT OF EQUIVALENT AND NON-EQUIVALENT SUBSTITUTION OF PRESCRIBED DRUGS FOR DEPRESSION AND ANXIETY DISORDERS ON PATIENTS' TREATMENT ADHERENCE AND PERCEPTION

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OBJECTIVES: To assess the impact of "equivalent substitution" (true generic of the prescribed drug) or "non-equivalent substitution" (switch to another agent, brand or generic) on perceptions, attitudes, and treatment adherence in patients with and without depression and anxiety disorder. METHODS: Over 10,000 randomly-selected US respondents from the 2007 National Health and Wellness Survey (NWHS) completed a self-administered, internet-based survey. The subpopulation of 2360 self-identified anxious/depressed respondents was supplemented with 5539 re-contacted self-identified anxious/depressed responders from the 2006/2007 NWHS. Responses from non-anxious/depressed patients were compared to those of self-identified anxious/depressed patients using t-tests, ANOVA, and multiple linear and logistic regressions. Comparisons were also made between anxious/depressed subgroups. RESULTS: A total of 52% of non-anxious/depressed patients experienced therapeutic substitution; 50% reported equivalent and 18% to non-equivalent substitutions (different brand—10%, generic of another agent—8%). 51% of the non-anxious/depressed and 71.5% of the anxious/depressed patients have experienced switching. More anxious/depressed patients found required step therapy unacceptable ($P < 0.001$; many tried to change health plans for this reason.77% of non-anxious/depressed and 81% of anxious/depressed patients considered equivalent substitution (an equivalent generic) acceptable, but only about half in both groups thought that non-equivalent substitution was acceptable. Substitution affected attitudes and treatment adherence significantly more in anxious/depressed vs. non-anxious/depressed patients. Importantly, anxious/depressed patients subjected to non-equivalent substitution reported significantly lower treatment adherence than those who were not ($P < 0.001$). Switching to a non-equivalent generic also reduced adherence more than switching to an equivalent generic ($P < 0.0001$) in this population. CONCLUSIONS: About half of all respondents found required step therapy unacceptable. Anxious/depressed patients reported significant deterioration of treatment adherence and treatment-related attitudes following equivalent, and especially non-equivalent substitution. Substitution of prescribed drugs for depression or anxiety disorders negatively affected self-reported treatment adherence in the treated population, which may impact treatment outcomes.

PMH76

FUNCTIONAL IMPAIRMENT IN CHILDREN AND ADOLESCENTS WITH DEPRESSION

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OBJECTIVES: This study examined the extent of functional impairment in children and adolescents aged 5 to 17 years with depression based on 2005–2006 Medical Expenditure Panel Survey (MEPS) data. **METHODS:** This study involved retrospective